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(54) **CONCRETE CUTTING DEVICE**

easy in its handling can thus be realized.

(57) Abstract:

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PURPOSE: To obtain the concrete cutting device easy in handling with the head part being miniaturized by combining a short focal point concave reflection mirror and long focal point convex reflection mirror and arranging on the optical path of the laser beam to be oscillated as a parallel beam from an oscillating device.

CONSTITUTION: The laser beam L1 oscillated from a laser beam oscillating device 1 as a parallel beam is guided to a laser condensing part C via the orthogonal cylindrical body 4 consisting of an expansion cylindrical body 2 and a rotary mechanism 3. The laser beam L2 condensed by reflecting by the concave reflection mirror 5 having comparatively short focal point is condensed at long focal point by reflecting by a convex reflection mirror 6 so as to obtain the necessary opening angle α . The laser beam L3 thus approached to parallel light is focused on a focal point P toward the necessary position of a concrete construction A. A cooling device 9 having fast heat conduction is provided on the back face of the reflection mirror 6 having high energy density. The concrete cutting whose head part is miniaturized and

